

Abstract of the Disclosure

STEAM POWERED FREE PISTON PUMP

The subject system provides a use of clean and environmentally friendly steam technology in place of a compression ignition system. The system used a free piston pump having a double acting pump. A first valve and a second valve are actuated by steam or hydraulically driven providing a fast response. And, each of the first valve and the second valve can be adapted to operate as a 3-way valve having an open position a closed position and an exhaust position. The design allows an improvement over existing compression ignition systems and can utilize a super low emission external combustion system as a power source which operates at a greater efficiency and decreases fuel consumption via regeneration. The present system can expand the steam until the quality drops below 1 into the region of saturated vapor. This adds to the potential efficiency by extracting more energy from the steam in the system. The system converts steam power to hydraulic power. And, to insure maximum efficiency saturated steam and water are uniquely removed from the steam power converting source.